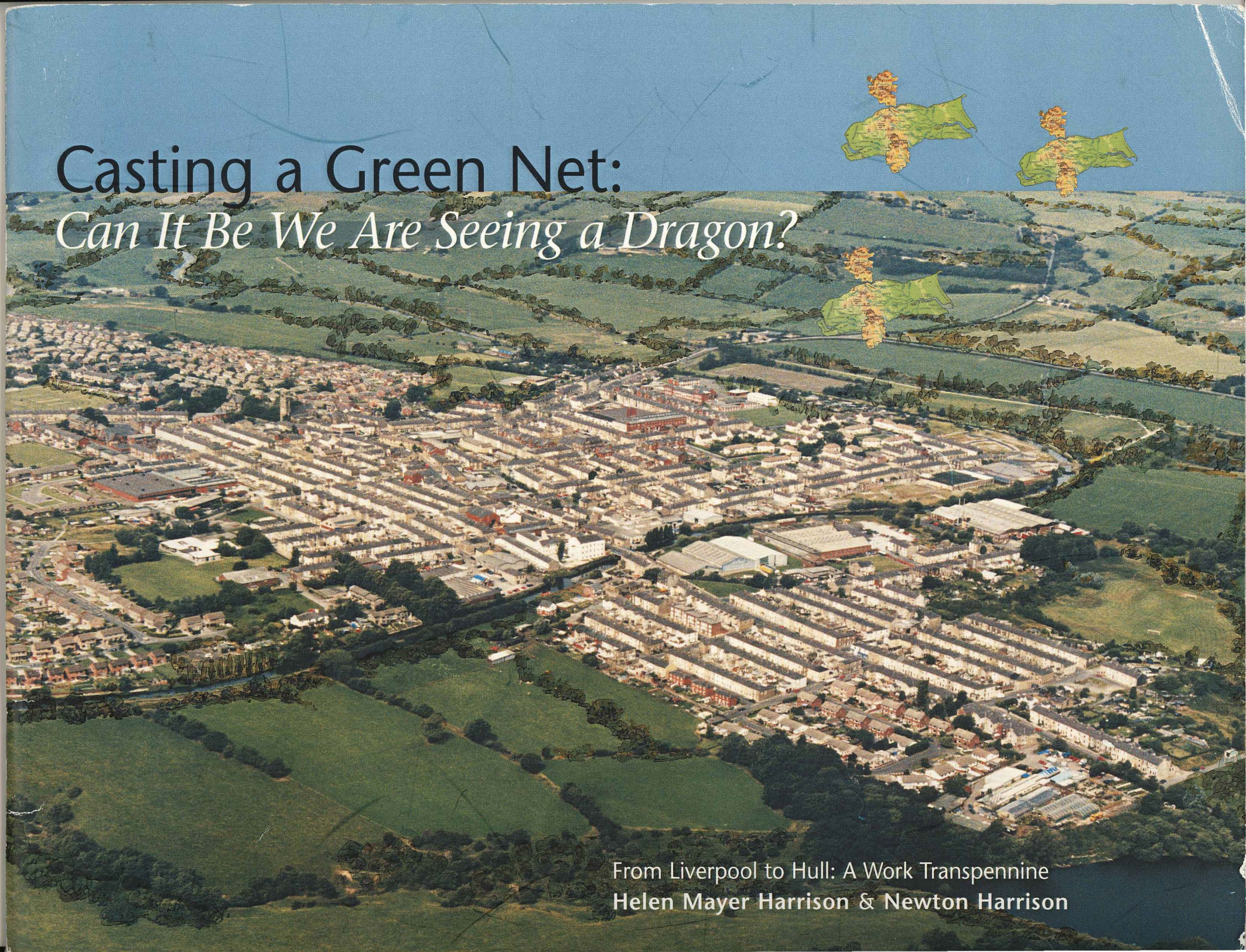
Casting a Green Net:

Can It Be We Are Seeing a Dragon?



From Liverpool to Hull: A Work Transpennine

Helen Mayer Harrison & Newton Harrison

Artranspennine98
an exhibition of international contemporary visual art

Artranspennine98 is an exhibition of international contemporary visual art, sited in the Transpennine region of the North of England, and taking place from 23 May–16 August 1998.

Casting a Green Net *is one of 40 artworks to have been selected for this exhibition, the biggest of its kind ever held in the UK, and involving over 50 artists, from around the world, United Kingdom, and the region, working at 30 sites from Liverpool to Hull.*

For more information on Artranspennine98, telephone 0845 30 98989.

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Forward

We were invited by two cultural institutions, the Liverpool Tate Gallery and the Henry Moore Foundation, to make a consideration of north England with the initial request to find, construct, or create the mind space and the physical space for a transect or connection between the cities of Liverpool and Leeds, across the Pennine Mountains. Instead, standing back, looking at the map of England, traversing the terrain, we proposed a work that would rhyme the estuaries on both sides of the island, the Mersey at Liverpool, the Humber at Hull. The work-image pattern that came forth as a result of our process of work was entitled: "Casting a Green Net: Can It Be That We Are Seeing a Dragon?" Thus this is the story of the becoming of that work, which is again all about that which we mean by "Every place is telling the story of its own becoming; every place is creating its own history every moment." But that story or conversation can take a new direction at any moment.

Sunlight on the Dragon

It happened
that people here asked us if we would not make
a work of art that was a connection
of a sort unspecified
from Liverpool to Leeds
since we were known as artists
who had done such works elsewhere
at similar scale.

Instead
honoring the request for scale and connectivity
we traveled the Pennines
the farms and the cities
the villages and the moors.
Thereafter
reflecting on the map of middle England
looking at the outfall of the Mersey into the Irish Sea
and thereafter at the vast outfall of the Humber
into the North Sea
we decided to rhyme the estuaries
and concern ourselves with the space between.

So
we imagined a giant
perhaps fifty thousand feet tall
standing where the estuary of the Mersey
flows into the Irish Sea
who
holding a magical green net
cast that net across the land
and wherever the threads of the net touched the earth
there was, had been or could be
a life web.
And the far end of the net landed
at Humberside to the east
and the net dropped into the Mersey in the west
automatically making
the meetings of earth and ocean
its beginning and its ending.

Thereafter
all the activities of people
could be contained and sustained
within a green, mostly biodiverse network
sometimes dense as the woodlands on the slopes
sometimes thinning
as do the wilderness setbacks along hedgerows
or the setbacks along the rivers
or the urban edges
where they meet the countryside.

Still
the boundaries of the web
were indeterminate at its north and south edges,
the boundary conditions yet to be set.

Until
looking forward and back across times and cultures
we located the Roman roads
interesting because they were
the first continuous hard markings on the landscape
which cross it from east to west
broken by forts and towns
and mostly made of stone
but sometimes just earthen tracks
acting all at once as trade route
containment and defense systems.

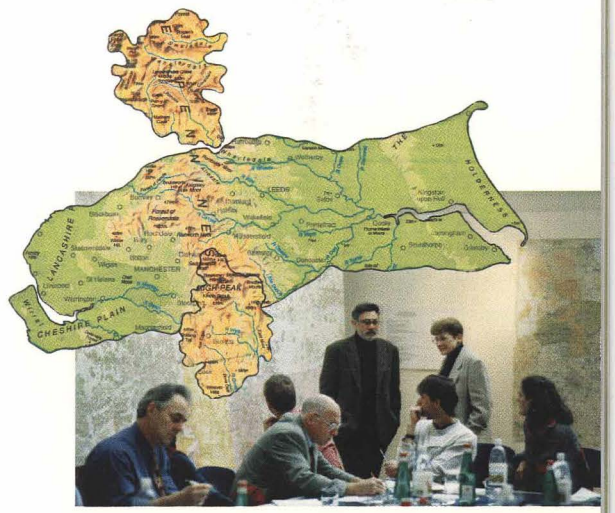
Then
the web
almost with a mind of its own
seated itself upon those roads
as it had upon the meeting of land and water.

Meanwhile
on an ordinance map some three meters by five meters
the boundaries of the Pennine Parks to the North
and to the South
were marked clearly
as were the Roman roads.
And when these marks had been made
we stood back startled.

Having cast this green net
having established its boundary conditions
having marked them on a map large enough
to give a sense of the terrain itself
we asked,
"Can it be we are seeing a dragon?"
And had to answer, "Yes."

Then
with the contemporary roads removed
and the rivers brightened
and that which was of earth,
which was the land and the water,
and that which was structure,
which was city or village,
became alternately figure and ground,
or ground and figure,
depending upon where you stood
and how you looked.
And the marks that had been made
to emphasize land and water
and to minimize roads
appeared to delineate the skin
of that strange sort of dragon
that we were seeing.

And so you and I
with the help of many
began to imagine a new space
which in our minds became
the domain of the Dragon.



And there were meetings with many where stories were told and arguments constructed, always in the presence of the Dragon which existed on modified ordinance survey maps about twice the height of a person and about six paces long.

...and stories were told

He was an artist who lived in a farmer's cottage at the edge of the Pennines and, with his partner, enabled other artists as well. He was generous with his time and his insights. His location was beautiful. He loved the countryside and opened our eyes and gave us a sense for the land as well as the condition of arts in the area as he drove us around. He was an optimist about both, despite the problems. They brought us to England by inviting us to speak at symposia, educated us about the land and its history. In fact without them, the Dragon might never have emerged.

She was a sociologist and social historian. She said, "There is no way to create a new region here. Although the government can and does impose new planning regions and new trade regions, the boundary conditions here have been established historically and are part of the social systems of everyday life." I said, "The Dragon does not propose to be a region." You said, "Please look at it as a new form of domain. After all, you know that new forms continually come into being." And I said, "It co-equally advantages all regions from which it springs and it in no way seeks to change any regional boundaries. It is, in fact, the regional boundaries which empower it and give it it's variety and richness of texture and cultural diversity."

They were geomancers, and they told us about the energy points in the earth. They liked the idea of the Dragon, which in some of the older traditions that they knew of, stood for the earth. When plotted on the Dragon, many of their energy points landed on the Roman roads marking the bottom of our creature, as if encouraging its flight.

He was an art historian. He looked at the images. He listened to stories. He looked up at the ceiling. He looked down at the floor. He left the room.

Discovering the dragon, by rhyming the estuaries and marking the Roman roads north and south, then concerning ourselves with the space inbetween.

The Great Green Net

Looking at the domain of the Dragon.
Thinking about the physical terrain.
Imagining what a green net might look like on the ground.
Searching for a pattern that would embody it
the form it might take
the processes that would let it come into being
and become self-evolving self-complicating
we began to look at the smallest changes
mostly in beliefs about the way farm subsidies were given
that might make such an event as the green net
possible at all.

For instance
If
the belief
that every flatland river needs to be open to view
is modified to include intermittent forested edges
then
wetland and riparian woodlands
can more rapidly appear at river edges
and act out their well known role
purifying the water table of animal and farm wastes
while establishing new biodiverse connectivities.

For instance
if
it were to be decreed by the appropriate powers
that it is an urgent priority that all rivers are to be cleaned
as is now true for some rivers
and riverine habitat values improved
then
species that still remain can return
and a walkable sensual
riverine aesthetic could be re-established.
like that of the Bollin wood near Wilmslow
and
this could be funded
simply by extending the model of the subsidies for setbacks
now available for hedgerows.

For instance
extending further the concept of set back funding
so that every city edge that borders countryside
has a ten to fifty meter wide wilderness setback
where its perimeters meets farm or field
then
every such city boundary will become
a contributor to connectivity
adding complexity to the form of the green net
and
the processes of life that compose it
while making their pattern, form and process
more evident in the everyday.

For instance
if
flowering meadows were reestablished
supported by increasing subsidies
to the amount of the productivity that would be lost
then species rich meadows
wherein the harvest preserves the system
could become strands within the green net.

For instance
if
the self-regenerating woodlands
along the little used Pennine slopes
and in the steep sided ravines
were permitted to spread and unify
as is now happening in many small pockets
with overstory densifying
as middle and understory complicated themselves
and pathways through made as people will
then a new Pennine Forest would emerge
from a natural succession
creeping towards the lowlands east and west.
with the moor lands little changed above
and the farm and pasture lands little changed below
This emerging woodland would add mass
diversity and further stability
to the strand like, string like mosaic properties
of the green net
that would be its primary properties in the low lands

And
for instance
if
the wooded edges of the forested ravines were harvested
on roughly a 150 year rotation cycle
then
in the long term
the act of harvesting the forests
would
produce profit
while keeping the forests from reaching climax state
thereby
assuring maximum diversity of species in the forest web.

"For instance
If the purification of every river begins at its source
and a marker were placed where pollution began
and the marker were moved downstream
as pollution was reduced
river by river
then a blue net of clean water would appear
as companion to
and in support of and supported by
the green net
that would exist at earth level and above

And as companion to
and in support of and supported by
the brown net that exists
from ground level downward
that mat of living soil
which would enrich itself
automatically over time
with small
but significant
changes in farming practices
until it became again what it once was
a continuously evolving
living mat of minerals and microorganisms
that is ever reforming its topsoil
yet parts of whose subsoils in places
have existed for over 4000 years.

Mapping a great green net across the space between the meeting of waters and land.

For instance
a small change in the perception of many
would reveal that
the space yet remains
within the domain of the dragon
for a varied life web other than our own
to exist to multiply to be valued
in a way which is of value to itself which is intrinsic
and to ourselves which is presently and irrationally
extrinsic.

For instance
there are varied soils enough
and diverse enough sub-climates
with varied rainfall patterns
and enough different riverside and streamside conditions
and different enough estuarine conditions
so that interlocking life webs
of great variety
situating themselves as part of everyday life
can re-form
where the green net landed.

Many said,
"Some of these changes are already happening.
and can be seen here and there.

Others said variously
"How could such a green net be actually done on the ground?"

And you said,
"By shifting subsidies
by modifying certain development patterns
and by forming and funding a new category of infrastructure
whose task it will be to birth the green net
and then to nurture the green net
over the years.."

For instance
imagine an act of generosity
an act of consensus
that would invite permit and value
such an entity as a biodiversity net
to come into existence at all?

I said
If not here then elsewhere
You said
If here
then elsewhere will know how to proceed

So the terrestrial ecology group supplied layers of information on soil and agriculture and forestry, and sheep pastures, moorlands and populations, so the domain of the Dragon could be viewed by all of us from many perspectives, all at once.

...and stories were told

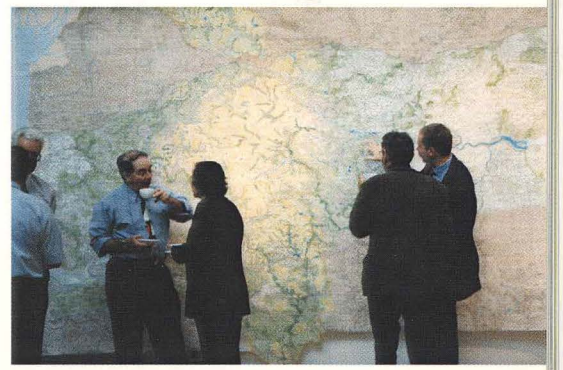
He was a forester. He said wilderness areas had to come into being by themselves or not at all and he was against the manipulation of things. We asked if, with that laissez-faire view, he was an optimist or a pessimist. He said that he was just a fatalist. In response, I said, "Be that as it may, in the domain of the Dragon there appeared to be less than 4% tree cover and this would have to double and redouble to meet the new forest standards for England and how would you go about doing that."

He was a director of a large park. He agreed with our dictum that not only does a succession ecology stabilize the land it also sequesters vast amounts of carbon. He approved of our ideas until we began to talk about reforesting in the Pennines. Then he said, "Oh, NO! Everybody wants these open lands to stay open!" He included himself in the group. He said some scattered woodlands, if the trees didn't interrupt the view, might be all right. But any truly forested area, given current opinion, was not worth considering. We invited him to Northern California to experience the last of the redwoods.

He was an earth scientist. He said if you forested the moor lands you would release more carbon dioxide than the forest could sequester and thus increase the Greenhouse effect. This was because the peat soil, if disturbed would release all the carbon it had been sequestering for the ages. We asked him about the succession ecologies that were reforesting in small spaces in the ravines along the slopes.

He was a botanist. He said, "I really have something to show you." He took us to Alderly Edge. We drove through a pretty wooded area and then parked and started to walk the trails. He astonished us with the great diversity of mini-ecosystems that had established themselves. There had been various mining activities over time there and these had taken place in different subclimates with different soils and subsoils and so that quite different groupings of fungi and plants established themselves in close vicinity. Their last species count in this small area was over 3,000. We said that the worst of places in our eyes could become among the best of places and this was an example. If here, then elsewhere!

Talking with us about her family farm and looking at the Green Net image she said, "You have made our pastures into flower fields. Who gave you permission?" I asked that if, on balance, a flowering meadow, properly harvested, were as profitable as a high production pasture, would her family refuse to consider the proposition. You gave her a green pastel and said, "If you are so offended by the notion, simply change our drawing to take your farm off the map."



And many touched these works at places where they lived or worked, or wanted something to happen, or wanted something not to happen.

The Great Green Farm

Standing back
looking at the map that gave voice to the domain of the dragon
marking on it all the arable land and pasture land
counting 900 square miles of arable land
seeing the various terrains
and the differing crop distributions.
Thinking about how all that inorganic fertilizer
was forcing plant growth
while destroying topsoil
Knowing a long term negative feedback loop
had been set in place
and was working

I said,
"What if for a moment we saw it as one farm
wherein all farmers
no matter the differences in culture
systems of belief
economic levels
or the size of their terrain
agreed
that incrementally improving their topsoil
while incrementally reducing their dependence
on petrochemical input
was the fundamental pathway to sustainability
over the long term."

And so
for the moment
we took the decision to think about
how one might add value to the topsoil
for about nine hundred square miles of croplands.
which turns out in round figures to be about 575,000 acres.

Now
it appeared that all the farmers we talked to
whether the few organic or the many agrochemical dependent
whether non-tillage farmers at small scale
or organic farmers at up to 2000 acre scale
Knowing well the consequences of ignoring these issues
We were concerned with the properties and quality
of their topsoil:
Its health, its friability, its ability to retain moisture
and its organic content that is to say its humus content.

Looking for a moment at how nature over millennia
created topsoil.
Thinking about the original forests that were here
and the way the forest recycles its own droppings
so that it is efficient
in the manner of all the great ecological cycles
where nothing is wasted.
And never forgetting that nature may take a thousand years
to make one inch of topsoil
we began to look for an eco-cultural cycle that would replace or
restore the soil that so obviously loses value
when its product is sent elsewhere
and replacements lack the one ingredient
living matter
which has been taken away.
In essence, a new feedback system at great scale
seemed called for.

For instance
if
there are about 9,000,000 people
living in the domain of the Dragon
variously in the cities,the towns, the villages, the hamlets
that stretch across the Pennines
from Liverpool in the west
to Hull in the east
and these nine million people in aggregate
produce domestic waste
of about a thousand pounds per year per person
of which two-thirds is compostable
then we are talking about
two million nine hundred and seventy thousand tons
of compostable organic waste
collectively per year
exclusive of animal waste and sewage sludge,
which calculated
at a loss of mass of 40% during the composting process
has a remainder of about eight tons per acre
spread over a three year rotation
on the 575,000 acres of arable land.

And if industrial waste was responsibly handled
before intermixing with household sewage
then we are looking at 11 or 12 tons per acre.
What would be the value of such an output be
for the production of food?

To find out
we asked our agrochemically dependent farmer
who was intelligently committed to acting
on his concerns for sustainability,
what would it mean if he could spread
eight to twelve tons of humus-like compost on his fields
on a three year rotation cycle.
And he responded
saying that assuming it was disease free and non-acidic
and heavy metals were not present beyond acceptable limits
and assuming a distribution system
which he thought might be quite easy to do
then he could eliminate entirely
his use of phosphates and potash
and reduce his nitrogen input by 60-80%
depending on crop
and
the value to him in monies would be considerable
with a bonus of increased friability
water retention in the soil
and probable improvement in the quality of food produced.

The process of civilizing the waste stream
and recycling it
behaving with our waste stream as nature would
is not endlessly difficult.
Operations at the scale necessary are carried on
by the auto industry, the energy industries, the telephone companies
and many major international corporations.

Surely it is rare that a single activity
such as the collection and reprocessing of organic wastes
can have such ramifications,

Thinking about a 900 square mile green farm coming into being, embedded within that net.

an outcome
that would cause a 900 square mile farming ensemble
to move towards the green
economically and intelligently
benefitting other parts of the community in the process
by reducing landfill by 60–70%
by reducing effluent flow into the ocean by 100%
and by producing organic produce.

There exist current technologies
capable of producing humus from waste
and support systems exist as well.
And
these ideas
although not at this scale
are presently being considered by many.

While the current conversation raises questions of costs
some worry there may be problems still
about the removal of impurities
and remnants of some heavy metals and other contaminents
and the possibilities of soil borne bacteria
if the humus isn't properly pasteurized.

None-the-less we propose a great green farm
moving towards the sustainable.
by virtue of improving the health of the living topsoil
that earth
from which everything that is grown springs
by behaving as nature has done
over millennia.

I said,
"If not here
then elsewhere."

You said,
"If here
then elsewhere will know how to proceed."

And in Halifax at
Dean Clough a
group formed and
posed the question
"How might the
Dragon develop a
life of its own, lifting
off the walls as it
were, and landing
on the ground?"

...and stories were told

He was a farmer from the organization called "LEAF". They were concerned about sustainability in the long term and he told us how his farm had been moving towards sustainability. He explained his six year system of crop rotation, his oft repeated soil analysis, his mix of crops and livestock in relationship to environmental husbandry, etc. And so I asked him if he had good humus to spread over his acreage.

He was the head of an ecological organization. He thought our plan was bold but none-the-less the farmers had traditions they would be reluctant to change. He said that the government had decreed that the forests had to double over the next few years and that had implications for the Pennines. I asked him what his hardest problem was. He said the way farmers were clinging to what were called traditional practices, those introduced in the mid-century after the chemical industry introduced its miracles. You said money, in the form of subsidies, changes practices all the time on a regular basis and therefore you believed the solution to the problem was located in London or the European Union. He said this is true.

They were women from Africa here on a visit to view the arts in England. They listened attentively to what we were saying. They said we were doing in England something they should be doing for their country.

He was from Wisconsin in the United States. He said he now did mostly non-tillage farming. He said had taken him five years to convert his farm and he had done so field by field. He said as the weather had been good and the price support systems had been reasonable he hadn't lost any money in the process. Now he was looking forward to much greater profitability since agrochemical prices had risen and his requirement for them had been reduced to the negligible.

He was an organic farmer. He was very thoughtful and well informed. He took us through his 2000 acre farm in a light rain. Over a three hour period he showed us a two thousand year old meadow, perhaps intermittently farmed over the millennia, with perhaps a hundred and fifty species. He showed us an old chalk pit on another meadow with a rich succession ecology, a badger sett and ancient Celtic barrows with the trough still in place, an ancient village site and the markings for an ancient Celtic field system on the opposing hill. Most interesting was his system of letting his meadows feed an average of only two sheep per acre, more in the spring, less in the summer. He told us that this kind of animal husbandry over time is both more profitable and easier to manage than higher density use which yields apparently higher profits, but only in the short run. He said he had the figures to prove it, but wrongly given subsidies were causing overgrazing and ruining the land. We asked him if his system of farming was profitable for 2000 acres, could it also be profitable for 1000 square miles. He said, "Yes."

He was an oceanographer. We talked briefly about the planned flood defenses for the Humber estuary and possibly constructing a new vision for the confluence area of the Humber and Trent Rivers, which had once been a large lake. We had in mind the reconstruction of oxbows which would function simultaneously as flood control, as wilderness habitat areas and as low intensity fish farms that could add materially to the "home grown" fish protein available. But time was too short. There was no day open to return and we regret it.

She was also from Africa. She asked, "How can one turn the desert back into a farm when the practice of farming has made the desert in the first place?"

And the dragon flies the trade route from Limerick to St. Petersburg, giving and taking value as it wills.

He was a planner. He considered the Dragon for a while. Finally he said, "Most of the major planning has been north-south and comes from London." I said, "Sometimes things change..." You said, "Sometimes not." I said, "if the Dragon comes into being, London will hear it's voice."

For a moment seeing a different urban edge, where market forces, unfettered command the terrain.

...and stories were told

He was a geographer. He was amused by the way the north-south boundary conditions established by the Roman roads divided cities. He said," From a point of view of trade and often social and cultural interest, each half of the divided cities looked inward when in the domain of the Dragon and outward when not and therefore our divisions were not arbitrary at all, as some had previously argued." We were relieved because from our perspective we had no other justification for the division of cities than the line of the Roman Roads.

She worked in community service and ecology. She asked how our work could honor every community. We thought that might be an impossible job, but she continued to insist it was necessary. We said that the Green Net, in tandem with the eco-urban edge, might contribute to the well being of many of the communities, which without these ideas, might well be swallowed up by development.

He was a developer. He was looking at the eco-urban edge. He said that dispersing development across a broad area was more expensive in terms of infrastructure than concentrating it in strips along the principal roadways. We said that if development were to be concentrated in that manner, then perhaps 300 villages and hamlets, each with their own character, would be enveloped, and we asked if he had weighed this loss of cultural identity against his economic argument?

He was a land planner. We had talked at length about what we wanted for the eco-urban edge. One day he said, "I have something to show you." He took us to Bollin Clough and on a wooded walk he showed us fen and marsh and carr. On the steep sides of the canyon the blue bells made a cloud of violet floating beneath the diverse canopy of green. There was genuine wetland. The houses backed up against a wilderness area with a variety of mini-climates, and, of course, of grasses, shrubs and trees. It was the eco-urban edge in place and in use. We said, "If here, then elsewhere."

He was a town planner. He was looking at the eco-urban edge as we had drawn it. He said that he could understand the principle and the concepts although he might not agree with them. But wasn't it arrogant on our part to propose a redesign of the way development could take place around every city or village in the area that we were calling the Domain of Dragon. We said this was not a planning design at all, but rather a schema for one. And we asked if he had considered what would take place here if the imminent future were to be determined part by part, and in the main by market forces?

She was an environmental planner. Her responses were positive and her doubts were out front. She was worried about the responses other people might have to changes and the negativity that the proposal at this scale might attract to itself. We told her stories about Holland where it was considered bad form and dangerous to "stick your head above the dike."

He said it looked like land planning to him. We said that perhaps he should look at it as conversational in nature and narrative in structure as every place is simultaneously telling the story of its own becoming and engaging in the continuous creation of a new history—a future history which was emerging from its past and its present. Therefore it might be useful to look at this work as part of an ongoing conversation about the future in the now.

The Eco-Urban Edge

Where market forces are reframed within an eco-cultural context

For instance
Imagine a new form of dispersal of people
money and resources
where
development becomes associated with
the generation of biodiverse habitat
so that the one does not subsume the other
as is now the case.
Imagine that this development
is spread across the land in such a way
that the continuity of farmland or green net was neither interrupted
nor made into an island.

For instance
imagine that every edge
of all the new housing development
had associated with it
a wilderness edge a biodiverse edge
working on the principle
that urban setbacks could and would
operate in the same way as farm setbacks.

Then the four hundred and fifty thousand houses expected to be
built here over the next twenty years
really a sixty seven billion pound economic engine
with associated jobs and industry
created by this event
would feed back in increments as needed
into the myriad industries of the local communities
rather than feeding out to those fewer international builders
who work at great scale.
Thus work, profit, well being and cultural diversity
would be preserved and perhaps even enhanced
while infill respected the existing greenbelts
and a new layer of connectivity
would strengthen the green net.

And so
you and I
with the help of many
began work on two maps at once—
the one which we called the catastrophe
which gave the power
mostly unmediated
to the market place—
and the other
a new form of building and planning
which is based on the development
of that which we call
the Eco-Urban Edge.

If not here,
then elsewhere.
If here,
then elsewhere will know what to do.

Strengthening the net by evolving an eco-urban edge, where wilderness co-mingles with expanding urban forms.

Afterwards Some Questions

Can the dragon live?

Is this odd creature, this Dragon, acting as a creation of the mind of the designers, ourselves, in a category of its own? From a systems or networking point of view can we be perceived as an environmental feedback loop initiated by two cultural organizations?

This Dragon, to exist on the ground, will require within its pattern of organization, continuous inflow of human (cultural) creativity and continuous flow through of biological material interpenetrating it. In that sense, the dragon must be in a continuous state of creating and re-creating itself. Only then can it fly from the iconic surfaces and come forth with a life of its own, evolving its own physical continuity, gaining complexity and therefore stability, over time.

Can this Dragon have the properties of a state of mind, creating and recreating itself in an ongoing discourse on its own well being? As it does so, can it set up more complex systems for self-recreation, not unlike the feedback loops of the cell which is a function of living systems? Certainly recycling its waste stream to improve the topsoil of the farmlands and evolving a green net by cultural consensus suggests this.

If this is the case then the Dragon has the potential to continuously synthesize and dissolve structures, to eliminate wastes by treating them as food for farmlands, which is itself a food producing system. This feeds back into the waste stream, which feeds back into the top soil, which in turn improves food for the cultures existing within and without the domain of the Dragon, which re-creates parts of itself in continuing cycles with the possibility over time of increasing the efficiency of its use of its own waste. Much like the cell or any complex life form, the Dragon must be of sufficient scale to make its borders or boundary conditions permeable to what is good for its well-being, less permeable to that which might be toxic to its overall well-being?

Does the Domain of the Dragon have certain properties of living structures, particularly their metabolic processes?

For instance, can we see the Dragon within the eco-cultural context as a bifurcation point? Can we see it in its own way as an emerging new attractor? Can it be seen as a pattern of organization that has come into existence as a new dissipative structure whose processes exist as a collective consensus of a multitude of minds where the organization of its pattern is held stable as long as the consensus continues?

These questions can be grouped into a single question. Can the Dragon operate in a condition of creative uncertainty since uncertainty is the nature of things? According to the theory of living systems, mind is not a thing but a process and the organizing activity of all living systems is cognitive activity. (i.e. even a cell knows what is good for itself and bad for itself, can differentiate between food and poison, has

cognition, and therefore operates within the sphere of mental activity, independent of a central nervous system etc.) Within the context of the notion that the global landscape is itself Gaia restating itself as an eco-cultural entity.